Abstract:

To test the efficacy of time of application of ReTain™ on fruit maturity, firmness, colour development and fruit quality of peach (Prunus persica), experiments were conducted at Pickering Brook and Bickley in Western Australia during 1999 and 2000. An aqueous solution containing a wetting agent ABG-7011 (0.1%) and ReTain™ @ 125g a.i. ha^{-1} (equivalent to 830 g ReTain™ ha-1) was sprayed onto trees 15, 10 or 5 days before the anticipated harvest date. These treatments were applied to 'O'Henry' and 'Summerset' during 1999 and 'Zee Lady' and 'Elegant Lady' during 2000. The results of these trials showed that a ReTain™ application to peach extended the harvesting period and delayed fruit maturity in 'O'Henry' and 'Summerset'. ReTain™ treatment 5-10 days before harvest also increased fruit firmness, total soluble solids, and acid content in both cultivars. Fruit colour development (red colour on yellow background) in 'O'Henry' and 'Summerset' was not affected with ReTain™ treatment. ReTain™ application also increased fruit firmness in 'Zee Lady' and 'Elegant Lady'. In 'Elegant Lady', ReTain™ showed no effects on fruit colour development during the first picking, but it reduced fruit colour during the second picking. Conversely, in 'Zee Lady', ReTain™ reduced fruit colour development during the first picking and had no effect during the second pick. In conclusion, application of ReTain™ 5 – 10 days before harvest proved more effective than at 15 days before harvest in improving fruit firmness and quality of late maturing cultivars of peach.